

- b) depositing a liquid sample into the sample entrance of said sample chamber;
  - c) allowing the sample to flow from the sample entrance into the first compartment;
  - d) allowing the sample to advance to the separation wall and the separation channels therein;
  - e) allowing the sample to advance through the separation wall and the first and second separation channels;
  - f) allowing the sample to continue to advance until it reaches and stops at the end of the sample chamber; and
  - g) obtaining a liquid sample [having decreased cellular or particulate concentration] forming a monolayer of desired individual cells or particles.
2. (Original) The method according to Claim 1 wherein said liquid sample is blood.
  3. (Currently Amended) The method according to Claim 1 wherein said apparatus further comprises a moat surrounding the sample chamber to allow for adequate venting of air through a multiplicity of venting-channels in said wall, while said sample chamber fills with liquid.
  4. (Original) The method according to Claim 3 wherein said moat further comprises at least one capillary stop to prevent uncontrolled flow.
  5. (Original) The method according to Claim 3 wherein said liquid sample is blood.
  6. (Previously Amended) The method according to Claim 1 wherein said first separation channel is 3 to 10  $\mu\text{m}$  deep by 5 to 50  $\mu\text{m}$  wide.

7. (Previously Amended) The method according to Claim 1 wherein said second separation channel is 0.5 to 1.5  $\mu\text{m}$  deep by 50 to 1000  $\mu\text{m}$  wide.
8. (Previously Amended) The method according to Claim 3 wherein said first separation channel is 3 to 10  $\mu\text{m}$  deep by 5 to 50  $\mu\text{m}$  wide.
9. (Previously Amended) The method according to Claim 3 wherein said second separation channel is 0.5 to 1.5  $\mu\text{m}$  deep by 50 to 1000  $\mu\text{m}$  wide.
10. (Currently Amended) The method according to Claim 1 wherein said apparatus further comprises a plurality of notches displaced laterally across the flow path in the interior space of [the] said sample chamber in order to even out the advancing fluid meniscus.
11. (Currently Amended) The method according to Claim 3 wherein said apparatus further comprises a plurality of notches displaced laterally across the flow path in the interior space of [the] said sample chamber in order to even out the advancing fluid meniscus.
12. (Currently Amended) The method according to Claim 1 wherein said apparatus further comprises a plurality of notches displaced laterally across the flow path in the first compartment of [the] said sample chamber in order to even out the advancing fluid meniscus.
13. (Currently Amended) The method according to Claim 3 wherein said apparatus further comprises a plurality of notches displaced laterally across the flow path in the first compartment of [the] said sample chamber in order to even out the advancing fluid meniscus.
14. (Original) The method according to Claim 10 further comprising after step (c), allowing the sample to flow past each notch in the first compartment; and after step (e), allowing the sample to flow past each notch in the second compartment.

15. (Original) The method according to Claim 11 further comprising after step (c), allowing the sample to flow past each notch in the first compartment; and after step (e), allowing the sample to flow past each notch in the second compartment.
16. (Original) The method according to Claim 12 further comprising after step (c), allowing the sample to flow past each notch in the first compartment.
17. (Original) The method according to Claim 13 further comprising after step (c), allowing the sample to flow past each notch in the first compartment.
18. (Original) The method of Claim 1 wherein said second compartment has an internal volume which is smaller than the internal volume of said first compartment.
19. (Previously Amended) The method of Claim 1 wherein said second compartment has a thickness of from 1 to 7  $\mu\text{m}$ .
20. (Previously Amended) The method of Claim 1 wherein said first compartment has a thickness of from 10 to 50  $\mu\text{m}$ .
22. (Previously Amended) The method of Claim 3 wherein said second compartment has a thickness of from 1 to 7  $\mu\text{m}$ .
23. (Previously Amended) The method of Claim 3 wherein said first compartment has a thickness of from 10 to 50  $\mu\text{m}$ .